

Technical Update

Laboratory Accreditation Requirements under the Records of Site Condition Regulation (O. Reg. 153/04)

Protecting our environment

Ontario Regulation 153/04, Records of Site Condition – Part XV.1 of the Act (O. Reg. 153/04) made under the Environmental Protection Act, in force October 1, 2004, requires that the analysis of samples taken for the purpose of assessing a contaminant as part of a phase two environmental site assessment or risk assessment or for the purpose of indicating the maximum concentration of a contaminant in, on or under the property in a Records of Site Condition (RSC) be conducted by a laboratory that has been accredited by an internationally recognized accreditation body [e.g., Standards Council of Canada (SCC) or Canadian Association for Laboratory Accreditation (CALA)] in accordance with the International Standard ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

What has changed?

Accreditation bodies require participation in proficiency testing programs, for accredited method/parameter/matrix combinations. The parameters listed in the Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act are included in this requirement.

In 2008, the Canadian Association for Environmental Analytical Laboratories (CAEAL) changed its name to the Canadian Association for Laboratory Accreditation (CALA).

Accreditation requirements under O. Reg. 153/04

A laboratory that performs sediment, soil or ground water analysis as part of a phase two

environmental site assessment or risk assessment or for the purpose of indicating the maximum concentration of a contaminant in, on or under the property in an RSC, must be accredited to the ISO/IEC 17025 standard through an internationally recognized accrediting body, such as SCC or CALA, and participate in mandatory proficiency testing programs.

Environmental testing laboratories have always been encouraged to seek accreditation. It is the law for RSC samples.

Who is affected?

- Laboratories that perform analysis on RSC samples
- Owners of property for which the record of site condition is filed
- Qualified Persons as defined by the regulation

What is laboratory accreditation?

Accreditation is granted by the accrediting body (e.g., SCC, CALA) after they receive proof of successful performance from available proficiency testing (PT) studies and have conducted an on-site assessment of the laboratory's competence to carry out specific tests, and are found compliant with the requirements of ISO/IEC 17025.

Proficiency testing programs are developed when there are sufficient accredited laboratories performing that analysis. In this way, valid statistics can be applied to identify acceptable and unacceptable analytical performance, for a specific parameter. When formal PT programs are not available, laboratories are required to demonstrate

proficiency using other mechanisms (e.g., inter-analyst comparisons, blind splits, etc.)

Why is the ministry requiring accreditation for laboratories?

Accreditation ensures that laboratories maintain a comprehensive documented quality system consistent with good analytical practice requirements. Accreditation establishes a consistent basis for acceptable quality among analytical laboratories and ensures they adopt a satisfactory quality system to carry out RSC sample analysis.

Conforming to the criteria set for available proficiency testing ensures that the testing procedure is being carried out in the proper manner. Failure to meet these performance criteria can result in automatic withdrawal of accreditation for that particular test procedure.

Which testing procedures must be accredited?

Mandatory accreditation of a specific test procedure applies to any laboratory that provides RSC sample analysis as part of a phase two environmental assessment or risk assessment. The Ontario Ministry of the Environment (MOE) believes that the majority of analytical testing required to be performed for the purpose of this regulation will require test procedure accreditation.

For the analysis of the parameters listed in the regulation, the requirement that the laboratory be accredited will ensure that they are compliant with ISO/IEC 17025 standards, through the mandatory on-site assessment performed by the accrediting body.

When must laboratories be accredited for RSC sample analysis?

The requirement to use an accredited laboratory came into effect October 1, 2004.

How will the ministry ensure that only accredited laboratories are used for sample RSC analysis?

When a Qualified Person takes a sample for the purpose of this regulation, they must ensure that an accredited laboratory as specified carries out the sample testing. The Qualified Person shall obtain from the laboratory written confirmation that the laboratory conducted the analysis for the contaminant in accordance the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act or other analytical methods for which the laboratory has received written permission from the Director.

How will Qualified Persons know which accredited laboratories to use for RSC analysis?

The Qualified Person may ask a laboratory to produce their “scope of accreditation”. This is a list of all parameters accredited by the accrediting body, in a specific matrix. To analyze RSC samples, the laboratory must hold accreditation for the parameters for which the accrediting body has required proficiency testing. A listing of laboratories and their accreditation scopes can be found on the Standards Council of Canada (SCC) and the Canadian Association for Laboratory Accreditation (CALA) web sites at www.scc.ca and www.cala.ca, respectively.

Can laboratories use methods other than those referenced in the analytical protocol?

Laboratories may use methods other than those specified in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act if the laboratory obtains the written permission from the Ministry Director to use that analytical method for that contaminant.

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